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### Background and objective:

Uterine sarcoma is a rare tumour accounting for 2-6% of uterine malignancies(1). The incidence of the uterine sarcoma ranges from 1.5-2 new cases per 100 000 women. Uterine sarcomas in general carry a poor prognosis with an overall survival of less than 50% at five years (2). The aim of this study was to compare sarcoma with carcinoma of the uterus in terms of patients and tumour characteristics.

### Results

This study included 41(6%) patients with sarcoma and 401 (96%) patients with carcinoma. Compared with carcinoma, sarcoma patients were more often diagnosed before the age of 50 (22% versus 6%), had less often tumour confined to the uterine corpus(22% versus 78%), had less frequently radiotherapy (10% versus 51%), and more often chemotherapy (24% versus 3%)(Table 1).

The 5-year overall survival was 76% for carcinoma and 34% for sarcoma ( $p<0.001$ )(Figure). After adjusting for age, tumour differentiation and stage at diagnosis, patients with sarcoma had significantly increased mortality risk (Hazard ratio: 3.6, 95% CI: 2.0-6.6)(Table2).

### Patients and methods:

The current study included all women who received surgery for sarcoma of the uterine corpus between 1980 and 1996. Data on survival and follow-up were derived from the Geneva cancer registry and included vital status, and cause of death. We compared patient and tumour characteristics, and treatment between carcinoma and sarcoma patients. Five-year overall survival curves were obtained by Kaplan Meier method and were compared by non-parametric survival analyses using log-rank test. The effect of histologic type (sarcoma versus carcinoma) on mortality was analysed by multivariate Cox's proportional hazard analysis, taking into account variables significantly linked to survival. Analyses were performed using SPSS. Differences were considered statistically significant at  $p<0.05$ .

**Table 2 Five-year overall survival and risk (hazard ratios) of dying from carcinoma and sarcoma**

Histology	N	Number of deaths	5-year overall survival (95% CI)	Unadjusted H R <sup>a</sup> (95% CI)	Adjusted H R <sup>b</sup> (95% CI)
Carcinoma	401	96	76(71-80)	1 (reference)	1 (reference)
Sarcoma	41	27	34(30-38)	4.4* (2.9-6.9)	3.6* (2.0-6.6)

<sup>a</sup> Hazard Ratio.

<sup>b</sup> adjusted for stage at diagnosis, age in continuous and differentiation.

CI : Confidence Interval

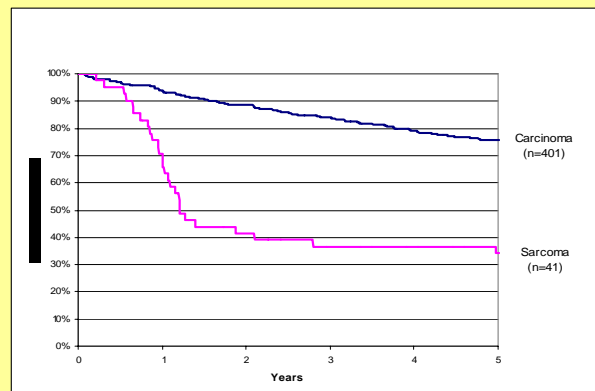
\* = P < 0.05

**Table 1 Patient and tumour characteristics between women with sarcoma and carcinoma of the uterus**

Characteristics	Type of malignancy		Total N=442 (%)
	sarcoma N=41 (%)	carcinoma N=401(%)	
Mean age	62.1 (40-81)	65.6 (33-91)	65.1 (33-91)
Age category			
<50	9 (22.0)	24 (6.0)	33 (7.5)
50-69	19 (46.3)	239 (59.6)	258 (58.4)
70+	13 (31.7)	138 (34.4)	151 (34.2)
Stage			
Confined to uterus	9 (22.0)	311 (77.6)	320 (72.4)
Involvement of the cervix	-	35 (8.7)	35 (7.9)
By adnexal/serosal extension or more	16(39.0)	55(13.7)	71 (16.1)
Unknown	16 (39.0)	-	16 (3.6)
Differentiation			
Good	2 (4.9)	223 (55.6)	225 (50.9)
Moderate	-	101 (25.2)	101 (22.9)
Poor / undifferentiated	10 (24.4)	57 (14.2)	67 (15.2)
Unknown	29 (70.7)	20 (5.0)	49 (11.1)
Any adjuvant treatment			
None	23 (56.1)	157 (39.2)	180 (40.7)
Rth only	4 (9.8)	198 (49.4)	202 (45.7)
Chemotherapy only	10 (24.4)	6 (1.5)	16 (3.6)
Rth + Chemotherapy	-	7 (1.7)	7 (1.6)
Unknown	4 (9.8)	33 (8.2)	37 (8.4)

Rth=Radiotherapy

Figure 1 Overall observed survival curves of patients with sarcoma and carcinoma of the uterus



### References

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### Conclusion

This population-based study shows that uterine sarcoma has a worse prognosis than uterine carcinoma